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ABSTRACT

Many adult basic education and literacy programs are reaping the benefits of educational technology for their students, instructors, and administrators. In this context, most often the term refers to computer-assisted instruction that supplements regular classroom instruction. In St. Paul, Minnesota, the Technology for Literacy Center uses computers to teach literacy and adult basic education skills to adults. Adult learners are given services through extensive use of computer-assisted instruction, trained volunteers, and a collaborative model that combines public and private partnerships. Piedmont Community College in Yanceyville, North Carolina, is using a computer-aided literacy model that respects the uniqueness and individuality of the students. The Adult Education and Literacy Section of the Illinois State Department of Education has awarded funds to 12 adult education programs to purchase and use computers and software. Seven programs have experienced an increase in student retention. The Army has developed the Job Skills Education Program, an instructional software program intended to instruct soldiers in the language and mathematical skills required to perform their jobs successfully. (Names and addresses of a contact for more information are provided for each program.) (YLB)

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ADULT LEARNING & LITERACY

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APPLICATIONS OF COMPUTER-AIDED INSTRUCTION IN ADULT EDUCATION AND LITERACY

POTENTIAL BENEFITS OF TECHNOLOGY

Many adult basic education and literacy programs are reaping the benefits of educational technology trends for their students, instructors, and administrators. When considering technology in the context of adult basic education and literacy, most often the term refers to computer assisted instruction, which supplements the regular classroom instruction. Some of the benefits of educational technology for adult learners are:

- Immediate feedback which enables learners to see the results of their work without embarrassment and in privacy.
- Interactivity, which more fully engages learners in the instructional process.
- Capacity to perform assignments which extend beyond drill and practice.
- Greater variety in the instructional methods used.
- Potential to accommodate different instructional needs and learning styles of adults.
- Presentation of complex instructional material in concrete visual formats which depict social events or scientific phenomenon.
- Increased student responsibility for learning through greater individual and group instructional strategies.
- Development of keyboarding skills which may assist adults in acquiring a basic employment skill.
- A sense of privacy for adult learners.
- Greater recordkeeping and data management capacity, through the

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ability to track progress of each learner and to compile necessary student achievement and accountability reports that satisfy State and Federal reporting requirements.

SOME CLASSROOM APPLICATIONS OF COMPUTER-ASSISTED INSTRUCTION
Technology is used in all areas of adult basic education and literacy programs. Examples of technology applications can be found in adult basic education programs for nonreaders, for intermediate level learners, for those preparing for their GED certificate, as well as in programs for limited English-speaking adults, institutionalized adults, and adults with disabilities. Some applications of instructional technology in adult basic education and literacy programs are described below.

In St. Paul, Minnesota, the **Technology for Literacy Center (TLC)** utilizes computers to teach literacy and adult basic education skills to adults. In the TLC, adult learners who need to improve their basic skills in reading, writing, and math are given direct services through extensive use of computer assisted instruction, trained volunteers, and a collaborative model that combines public and private partnerships. Adults can use the computers on their own time, at their own speed during the day, in the evenings, or on the weekends. Volunteers assist in tutoring, small group instruction, office functions, computer instruction, or special events.

For more information contact:
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Piedmont Community College, in Yanceyville, North Carolina, is using a **Computer-Aided Literacy Model** to teach literacy and adult basic education skills. Adult learners receive computer-aided literacy instruction at the Center for Advancing Technology (CAT), located at the community college. A variety of instructional software is used on several types of computers. A voice activated digitizer also provides literacy and adult basic education instruction.

The **Computer-Aided Literacy Model** respects the uniqueness and individuality of the students. The readiness level and skill achievement of each student is recognized while individualized and self paced instruction appropriate for the learner's educational goals is furnished. Through this method of instruction, the adults also obtained immediate feedback on their efforts. The CAT provides an alternative learning environment for young adults who have left high school without receiving their diploma as well as effective instruction for older adults who have few literacy skills.

For more information contact:
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In May, 1990, the Adult Education and Literacy Section of the **Illinois State Department of Education** hypothesized that the use of computer aided instruction would increase the retention rate of public assistance clients who enrolled in an adult education curriculum. To test this theory, funds were awarded to twelve randomly selected programs throughout Illinois. Programs assisted with these funds were representational of the adult education programs conducted in Illinois and therefore the participating students were thought to be representative of adults who enroll in the programs. Program participants were from four public school districts, two regional instructional areas and six community colleges. Funds were distributed in May, 1990, with instruction given during the 1991 fiscal year.

Local programs were given the discretion to purchase the number and type of computers thought to meet their instructional objectives. Likewise, each program decided what software it would purchase. The computers and software were used either as a lab to supplement classroom instruction or as the primary source of instruction.

Seven of the twelve programs experienced an increase in student retention for the full year. These gains ranged from 1.5 to 25 percentage points. There appears to be several reasons for this increase. Using computers enabled the adults to schedule learning activities at times that were convenient for them. Others enjoyed learning keyboarding skills and using the instructional software. One program indicated a 14% increase in enrollment over the previous year when the use of computers was advertised in the class. Other programs found that adults stayed in the classes longer and completed more educational objectives.

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The U.S. Department of the Army developed the **Job Skills Education Program (JSEP)** which is an instructional software program created in response to the Army's need to raise the basic skill level of soldiers. The program is intended to instruct

soldiers in the language and mathematical skills required to perform their jobs successfully. Specific software and hardware was developed for the system by the subcontractors, Florida State University and Ford Aerospace.
As of December, 1991, JSEP was being used in 11 civilian sites--five at industrial sites, one at a union-sponsored training center, one in a local job training program, two at community colleges, and two in local school districts that conduct adult basic education programs. JSEP is being used at the adult education program being conducted at Rochambeau School in White Plains, New York, where it was begun in June, 1989.

In this open entry program, students receive instruction from a teacher for two hours daily, five days a week, and then use a portion of the JSEP software for two hours each day. Students are using the software either to prepare to enter a new career field or to update their current occupational skills. The adult learners select the job skill areas (called "prescriptions") they want to work on. They choose from one of the 25 prescriptions which are available to them. The material contains both a verbal and a mathematical instruction series. Students report that using the JSEP system helps them to focus and concentrate on their instructional work. They also like a feature of the software that permits them to return to material they did not understand the first time it was presented. According to some students, this review feature relieves much of their previous learning anxiety.

For more information contact:
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Additional information about technology resources for adult educators may be obtained from:

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